ADDENDUM # 1
COUNCIL WELL CONSTRUCTION
REQUISITION # K-135830

The following changes have been made to the requisition listed above. The bid closing date remains the same (November 16, 2004 @ 2:00 PM MST

1. Replace SP-1 (1 sheet) with new SP-1 (1 sheet). Paragraph 5 dealing with contingency funding for the pump has been removed.

2. Replace S.S.P.655-Well Construction (4 sheets) with the new S.S.P. 655-Well Construction (4 sheets).

3. Replace drawing (1 sheet) with new drawing (1 sheet).

All other specifications will remain the same.

SP-1 WELL CONSTRUCTION AT NEW MAINTENANCE YARD (COUNCIL)

Description: This work shall consist of drilling a well, furnishing and installing a well casing, furnishing and installing well screen assembly, well development, furnishing and mobilizing a test pump, well pumping test, furnishing, and installing pump and accessory equipment, and furnishing and installing a pipe column in accordance with the specifications and as directed.

It shall be the contractor's responsibility, prior to bidding, to investigate the geology of the area and the nature of the strata that may be encountered in drilling the well or wells. No extra compensation will be paid the contractor for unexpected drilling difficulties.

The Contractor shall furnish and install all necessary parts and accessories required for complete installation and other items essential for the complete project.

Method of Measurement: Furnishing the well will be measured on a lump sum basis and shall include drilling the well to the depth shown on the plans, the well casing, the well screen assembly the well development, well pumping tests, pipe column, and all other items necessary for installation of a well complete and in place.

Furnishing the well deeper than shown on the plans will be measured by the linier foot including casing and other necessary items to extend the well depth. This linier price will not be part of the total bid amount.

All items shown or noted on the plans which are not specifically a bid item are considered incidental items. The cost of furnishing and installing all incidental items will not be paid for separately, but shall be included in the contract unit prices for other items, unless otherwise noted.

Basis of Payment: The accepted quantities will be paid for at the contract unit price for the item listed below:

Payment will be made under:

Pay Item	Pay Unit
Well Construction at New Maintenance Site (Council)	Lump Sum

S.S.P. 655 - WELL CONSTRUCTION

655.01 - Description. This work shall consist of drilling a well, furnishing and installing a well casing, furnishing and installing well screen assembly, well development, furnishing and mobilizing a test pump, well pumping test, furnishing, and installing pump and accessory equipment, and furnishing and installing a pipe column in accordance with the specifications and as directed.

It shall be the contractor's responsibility, prior to bidding, to investigate the geology of the area and the nature of the strata that may be encountered in drilling the well or wells. No extra compensation will be paid the contractor for unexpected drilling difficulties.

655.02 - Materials.

Casing. All casing shall be in accordance with ASTM A53, Grade B, 0.25 in. thickness new steel pipe, round and joined with full penetration welds. The size of the well casing shall be as shown on the plans and in the bid schedule.

Furnish Pump. The pump selection will be made after the well has been drilled and the characteristics and depth of the well are known. The contractor shall furnish sufficient pump characteristic curves power data, warranty provisions and other normal information used in pump selection. The owner will be responsible for furnishing electrical power to the site but will not be available at time of drilling. At the time of the pump order, four copies of the performance curves, along with dimensions and descriptive literature and warranty provisions, shall be furnished.

Unless otherwise directed, the contractor shall supply a submersible pump complete.

The following general specifications are applicable:

a. The electrical switch for 2.24 kW and larger pumps using three-phase power shall incorporate a combination disconnect and magnetic starter with three-leg quick trip, ambient compensated heaters sized for the motor.

b. The inlet for a submersible pump shall be fitted with a metal strainer having a net inlet area of at least four times the suction pipe area.

c. The impellers and diffusers of submersible pumps may be of precision molded material equivalent in performance warranty to bronze, brass or cast iron.

SUBMERSIBLE PUMP

a. For depths less than 500feet the pipe column shall be galvanized Schedule 40 steel pipe with extra-length heavy-wall couplings.
b. For depths greater than 500 feet, the entire pipe column shall be galvanized Schedule 80 steel pipe with extra-length heavy-wall couplings.
c. A non-slam type of check valve shall be attached to or integrated with the pump bowl assembly to prevent back flow through the pump. If the pump setting exceeds 100 feet, an additional non-slam type check valve shall be installed at the first joint in the pipe column above the pump. If the pump setting exceeds 400 feet, a third non-slam type check valve shall be installed at the two thirds point above the pump. If the pump is

part of a pressure system, an additional non-slam type check valve shall be installed at the surface.

Pump Accessory Equipment. The pitless adapter shall be as approved by the Pitless Adapter Division of the Water Systems Council. A static air line consisting of 0.25 in. continuous PVC shall be included.

655.03 - Construction Requirements. Well construction shall be in accordance with the Idaho Department of Water Resources Well Construction Standards, Rules and Regulations, and the Idaho Standard Specifications for Highway Construction.

Drilling Well. This work shall consist of drilling a well of sufficient depth at the plan location to produce a constant supply of potable water. The well shall be drilled by a Licensed Well Driller, in accordance with Idaho Department of Water Resources Rules and Regulations for Water Well Driller's Licenses. The Contractor shall be responsible for obtaining, payment, and maintaining the Drilling Permit in accordance with Section 42-325, Idaho Code. The size of the well shall be as shown on the plans and in the bid schedule. The well shall be sufficiently straight to admit the size of submersible pump required.

If the contractor is required to drill beyond the depth shown on the plans and in the bid schedule, the payment for the additional depth shall be at the unit price for the deepest drilling shown in the bid schedule.

The contractor shall keep and submit to the Engineer and to the Director of Idaho Department of Water Resources an accurate log of the drilling operations. The log shall consist of a description of the materials encountered, depths, and samples taken at each change in lithology. Contractor shall coordinate with the owner to provide sufficient sample sizes. In addition, samples shall be taken of water from all water bearing strata which may be encountered for reference in developing the well. Containers and potability testing shall be according to State Health Department procedures. The drilling log shall be verified by a Professional Engineer or Professional Geologist registered in the State of Idaho. No separate payment will be made for this work as the cost thereof shall be included in the cost of drilling the well. The Engineer will perform the gradation analyses of soil samples taken from the water bearing strata.

Furnish and Install Well Casing. This work shall consist of furnishing and installing the well casing. The well, when completed, shall be cased from the pump base or pitless adapter to the top of the screen assembly.

The casing shall be Sealed in accordance with the Idaho Department of Water Resources Well Construction Standards.

Well Development. This work shall consist of developing the well until it is capable of furnishing water, free from sand or other material in quantities specified in the plans or as directed.

Upon completion of the drilling, casing, and installation of the screen assembly, the contractor shall develop the well by surging and bailing, pumping, or air lifting. Development shall continue until no appreciable amount of material is brought into the well after 30 minutes of pumping or vigorous surging.

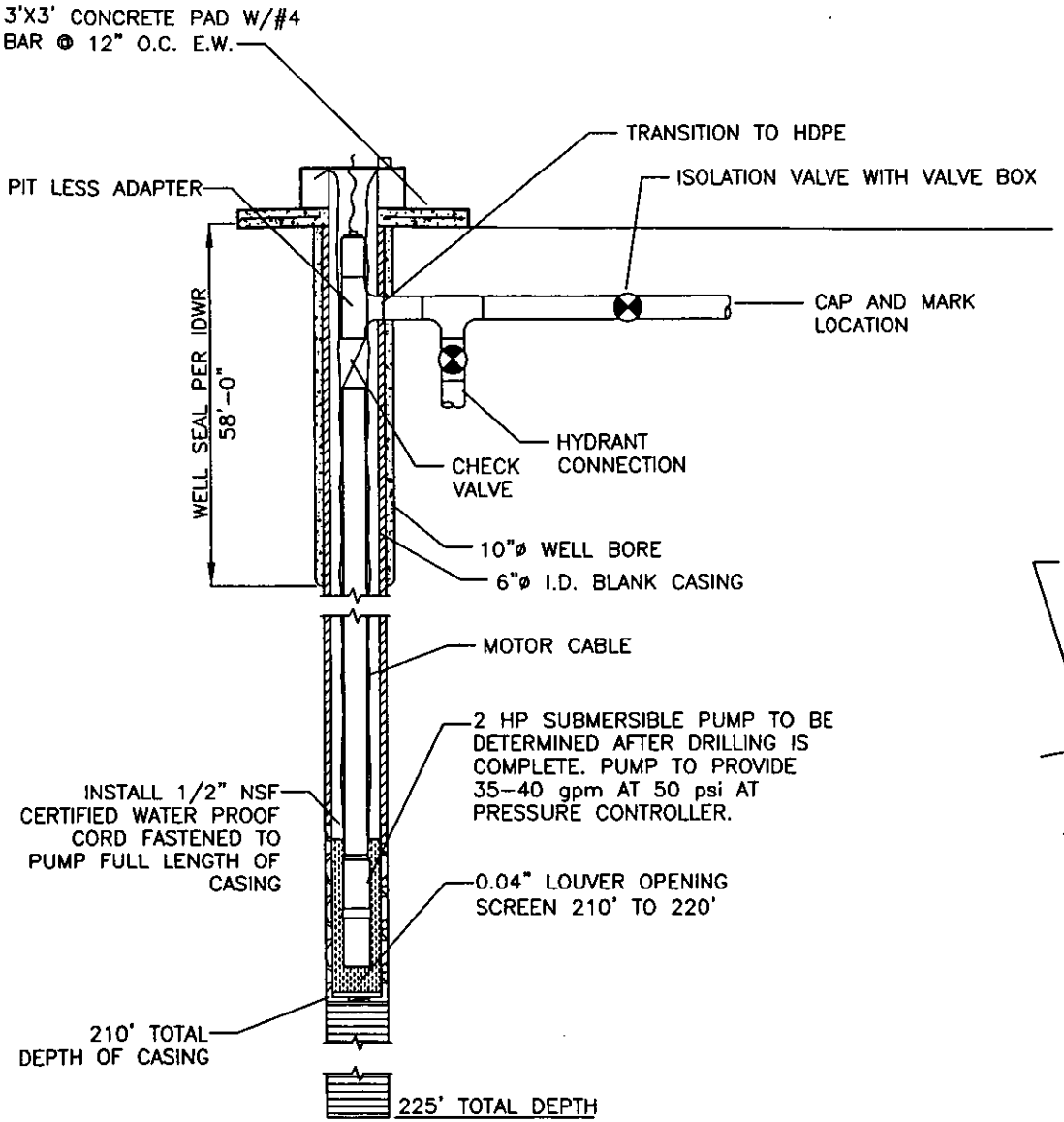
Well development over 15 hours must be approved by the Engineer.

Furnish and Mobilize Test Pump. This item consists of furnishing, installing, and removing a test pump used for the Well Pumping Test. The contractor shall furnish his own power source for the test pump.

sum basis and shall include drilling the well to the depth shown on the plans, the well casing, the well development, well Pump and accessory equipment, pumping tests, pipe column, and all other items necessary for installation of a well complete and in place.

Furnishing the well deeper than shown on the plans will be measured by the liner foot including casing and other necessary items to extend the well depth.

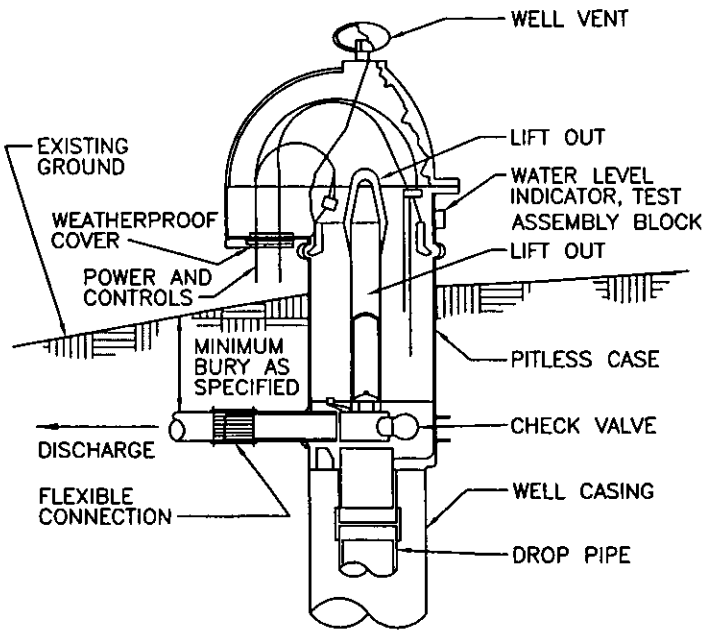
All items shown or noted on the plans which are not specifically a bid item are considered incidental items. The cost of furnishing and installing all incidental items will not be paid for separately, but shall be included in the contract unit prices for other items, unless otherwise noted.



PRODUCTION WELL (5 / P-1)
SCALE: NTS

NOTE:

1. WELL SCREEN AND PACKING MEDIA TO BE VERIFIED AT TIME OF CONSTRUCTION BASED ON ACTUAL DRILLING LOG AND SOIL TYPE.



Well Pumping Test. This work shall consist of pumping the completed well in order to prove its specific capacity and provide a record of the static water level. The estimated total time for the pumping test is not less than 8 hours, but not to exceed 24 hours, without written permission. During the test, an accurate record of pumping discharge and water levels will be kept by the contractor and verified by a Professional Engineer or Geologist registered in the State of Idaho and supplied to the Engineer.

The Contractor shall measure the water surface elevation accurate to within 2 inches just prior to the start and finish of the pump test and at the following intervals:

Time since pumping started (or stopped) in minutes	Time Interval between measurements in minutes
0-10	0.5-1
10-15	1
15-60	5
60-300	30
300-1440	60
1440-termination of test	480 (8 hr)

The record of measurements shall be provided to the Engineer and reviewed prior to acceptance of this work.

The contractor shall be responsible for the disposition of all the water pumped, and shall take every precaution to avoid damage to any property and shall be responsible for any water damage incurred.

Furnish and Install Pump and Accessory Equipment. This item shall consist of furnishing and installing the pump, complete with motor, electrical switch, wire and conduit, concrete pump base or pitless adapter, static air line, and all accessory equipment necessary to provide an operational well and pump installation.

A static air line to measure water levels shall be installed and attached with the electrical wire and conduit. The bottom of this line shall be attached close to the pump suction inlet but no closer than 5.25 feet. The exact length of the air line shall be measured as it is placed in the well. The air line shall be attached at frequent intervals so as to be secured tightly without bending. The end at the surface shall be taped to prevent plugging and shall be secured for easy access.

After pump installation is complete, purity and potability will be determined by the Idaho Department of Health and Welfare. Disinfection of the well in accordance with Idaho Department of Health and Welfare standards shall be accomplished by the Contractor.

Contractor shall perform clean up efforts to return area around the well head to it's original condition. Clean up efforts include but are not limited to removal & disposal of all well cuttings, materials and debris generated during the well drilling process. Also remove unused materials, casing, temporary drainage facilities or other items resulting from the drilling, developing or testing of the well.

655.04 - Method of Measurement. Furnishing the well will be measured on a lump